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AMSAT NEWS SERVICE
ANS-149

ANS is a free, weekly, news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

Please send any amateur satellite news or reports to:

ans-editor@amsat.org

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SB SAT @ AMSAT $ANS-149.01
70 CM Spectrum Safe

AMSAT News Service Bulletin 149.01
  From AMSAT HQ SILVER SPRING, MD.
May 29, 2011
To All RADIO AMATEURS
BID: $ANS-149.01

70 CM Spectrum in HR 607 Safe After Meeting With Congressman King

A delegation of Amateur operators led by Peter Portanova, WB2OQQ, AMSAT NY Area Coordinator, from the Long Island/New York City area met with Congressman Peter T. King (R-NY) on May 19 to discuss his recent proposed legislation, H.R. 607, and its impact on Amateur Radio. Peter, who resides in King's Congressional District, worked for many months with only assistance from his local Town of Massa-pequa government to arrange this important meeting.

The delegation included Mike Lisenco, N2YBB, ARRL Section Manager for New York City/Long Island (NLI), Peter Portanova, WB2OQQ, NLI Local Government Liaison and AMSAT NY Area Coordinator, George Tranos, N2GA, NLI State Government Liaison (SGL), and Jim Mezey, W2KFV, NLI ARES Section Emergency Coordinator (SEC).

Portanova, Lisenco, Mezey, and Tranos spoke about the importance of Amateur Radio emergency communications and Portanova, who is the Radio Amateur Satellite Corporation (AMSAT) NY Area Coordinator, addressed the amateur satellites and its contributions to Science, Technology, Engineering, Mathematics (STEM) education and disaster communication. Barry Baines, WD4ASW, President of AMSAT, prepared an important letter that was delivered to Congressman King, by Peter, addressing his concerns of HR 607. Mr. Baines also contributed and

shared a great deal of information to Peter to allow him to make a successful presentation of AMSAT's activities to Congressman King.

Congressman King said that he fully understands and appreciates the importance of Amateur Radio and the Amateur Satellite Service for the contributions it provides to the community, and that he would see to the modification of the bill so that the 420-440 MHz band would be excluded from the spectrum to be auctioned. The Congressman was very receptive to the group and listed Peter Portanova as point of contact.

"The Congressman went on to explain that it was never his intention to remove the 70 centimeter band from Amateur use. He further asked us to 'get the word out' and inform the Amateur Radio community that 70 centimeters is not in jeopardy", said Portanova.

Portanova learned on May 26 that Congressman King has requested the House Committee on Energy and Commerce to remove section 207, the section covering the auction of the 420-440 MHz and 450-470 MHz spectrum, from the bill. Sub-Committee Chairman Rep. Walden agreed so the threat to amateur radio access to 70 cm spectrum is no longer an issue.

The ARRL has reported that the Senate companion bill S-1040 with similar objectives as H.R. 607 does not call for auctioning any portions of Amateur Radio spectrum.

AMSAT President Barry Baines, WD4ASW noted, "Peter is to be commended for taking the initiative to arrange for this meeting with his Congressman on behalf of AMSAT. Using his contacts within the Town of Massapequa, NY government, Peter made the appropriate queries to schedule the meeting and then sought input from AMSAT to maximize the quality of information presented. He also invited amateur radio operators to the meeting with ties to the ARRL as well. His initiative and thorough preparation for the meeting resulted in a very positive experience as well as enlightened Rep. King to the significant benefit of amateur radio in space and the wonderful work done by AMSAT volunteers and others in the areas of technology and education outreach."

(Editor Note: AMSAT President Barry Baines, WD4ASW letter to Congressman King can be read on a link at the AMSAT web site http://www.amsat.org).

[ANS thanks Peter Portanova, WB2OQQ and AMSAT President Barry Baines WD4ASW for the above information]

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SB SAT @ AMSAT $ANS-149.02
The DARA Matching Gift Challenge

AMSAT News Service Bulletin 149.02
From AMSAT HQ SILVER SPRING, MD.
May 29, 2011
To All RADIO AMATEURS
BID: $ANS-149.02

The DARA Matching Gift Challenge

The Dayton Amateur Radio Association (DARA) has announced a fund raising challenge for AMSAT whereby they will match on a 1:3 basis up to $5,000.00 for donations made in 2011. That is, for every $3.00 that AMSAT raises, DARA will provide $1.00 up to a maximum of $5,000

donated by DARA.

AMSAT kicked off the fundraising campaign at the Hamvention, where donations began count against this goal. Please consider making a donation to AMSAT at Hamvention or anytime this Spring as we strive to meet this goal.

We appreciate DARA's support for AMSAT and see this as an opportunity for donors to increase the impact of their donations by taking advantage of this matching program.

[ANS thanks AMSAT Headquarters for the above information]

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SB SAT @ AMSAT $ANS-149.03
Cornell University Chip Satellite Team Invites Ham Radio Collaboration

AMSAT News Service Bulletin 149.03
  From AMSAT HQ SILVER SPRING, MD.
May 29, 2011
To All RADIO AMATEURS
BID: $ANS-149.03

Cornell University Chip Satellite Team Invites Ham Radio Collaboration

A group of Cornell University-developed, fingernail-sized satellites may travel to Saturn within the next decade, and as they flutter down through its atmosphere, they will collect data about chemistry, radiation and particle impacts.

Three prototypes of these chip satellites, named "Sprite," were mounted on the International Space Station during a recent spacewalk. The thin, 1-inch-square chips are mounted to the external Materials International Space Station Experiment (MISSE-8) pallet, exposing them to the harsh conditions of space to see how they hold up and transmit data.

Zac Manchester at Cornell University explained that the chips transmit as beacons with 10 milliwatts of RF power at 902 MHz using MSK modulation (minimum-shift keying) with a chipping rate of 50 kbps. The Cornell team invites AMSAT satellite operators to collaborate with this experiment to determine conditions in which the low-power signal has been detected on the ground.

The Cornell ground station consists of a 18 dBi yagi with a GNU Radio and USRP receiver (http://www.ettus.com/products). A significant challenge is that the MISSE-8 pallet the chips are on is mounted on the anti-nadir side of the space station, facing away from the earth. The team is hoping to be lucky to catch some kind of reflection off the ISS structure.

Beyond being able to detect the signal on Earth, decoding the message requires signal processing. The chips all transmit on the same frequency, each with it's own PRN code. The Cornell team uses these codes to differentiate each one, as well as to provide signal processing gain. At Cornell, data is being recorded and post-processed with a standard PC.

To track these chip satellites just use the ISS keplerian elements because they are mounted on the space station.

Mason Peck, Associate Professor Mechanical and Aerospace Engineering

at Cornell University wrote, "Receiving the full sequence of data per se is not of interest, but the mere reception of it (a single digital bit, for us), indicates successful transmission. If you would like to serve as one of the lucky few to try detecting this signal, please follow up with Zac Manchester (zrm3@cornell.edu). We definitely welcome the collaboration of HAM operators."

More information be found at these sources:
http://tinyurl.com/3fs5ks7 (spacemart.com)
http://www.spacecraftresearch.com/blog

[ANS thanks Zac Manchester and Mason Peck at Cornell University for the above information]

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SB SAT @ AMSAT $ANS-149.04
Awards Manager for AMSAT marks 10 Years

AMSAT News Service Bulletin 149.04
From AMSAT HQ SILVER SPRING, MD.
May 29, 2011
To All RADIO AMATEURS
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It was May 12, 2001, the day that Mike Scarcella, WA5TWT, the previous AMSAT Awards Manager handed over all the files to me as the new Awards Manager. For 10 years I have performed this duty as fairly and equitably as I can. I computerized all the awards, entered some of the very early Communication Achievement Awards into the computer and helped create some new awards along the way.

Here's to another 10 years, enjoy.

Here is a list of awards issued in the last month or so.

The following have entered into the Satellite Communicators Club for making their first satellite QSO.

Brandon Rasmussen, K7BBR
Stephen Davis, KJ4FEL
Richard Ryan, KC2YDQ

The following have earned the AMSAT Communications Achievement Award.
Nikolai Ozerov, VE3NKL, #535
Richard Batchelor, KA5IQX, #536

The following have earned the AMSAT Sexagesimal Award.
Rodney Waln, KC0ZHF, #160

The following have earned the AMSAT Century Award.
Doug Papay, KD8CAO #41

The following have earned the South Africa Satellite Communications Achievement award Richard Batchelor, KA5IQX, #US166

The following have earned their Robert W. Barbee Jr., W4AMI Award.
Gerald Krebs, N0JE, #US72

John Papay, K8YSE, #US73
Ron Oldham, N8RO, #US63 endorsement for 2K, 3K, 4K
Bob Harrell, AJ5C, #US64 endorsement for 2K, 3K, 4K

The following have earned their Robert W. Barbee Jr., W4AMI 5000 Award.
Ron Oldham, N8RO, #26
Bob Herrell, AJ5C, #27

To see all the awards visit http://www.amsat.org or http://www.amsatnet.com

Bruce Paige, KK5DO
AMSAT Director Contests and Awards

[ANS thanks Bruce, KK5DO, for the above information]

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SB SAT @ AMSAT $ANS-149.05
Satellite Shorts From All Over

AMSAT News Service Bulletin 149.05
From AMSAT HQ SILVER SPRING, MD.
May 29, 2011
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+ AMSAT has received the sad news that Robin Harvey, G4BBR died on the morning of May 23, 2011 after a long illness. He was active in the early days of satellites in the 1970's. He was most active on Oscar 7. Robin was AMSAT Life Member number 445. Our condolences go out to his wife Shirley.

+ According to the 21 May 2011 A.R.I. DX Bulletin No. 1046 425 DX NEWS bulletin OY/PA0VHA, OY/PA2A and OY/PA2AM are active from Streymoy, Faroe Islands (EU-018) from 23 May to 2 June. In addition to HF, 6 meters, and 4 meters they plan satellite operation via AO-51 (if available). QSL via home calls.

+ A link on UniverseToday will bring you to an Infographic: How the New Multi-Purpose Crew Vehicle Stacks Up. Thanks to Space.com and the Tech Media Network for sharing this great graphic showing NASA's "new" MPCV and how it compares with other human spaceflight vehicles. http://tinyurl.com/3bngf99 (UniverseToday.com)

+ Back in time: Steve Haines VK3DBL has released a video showing a March 1997 contact he had with astronaut Andy Thomas KD5CHF/ VK5MIR who was on the MIR space station. See: http://tinyurl.com/3v7rbmh (Southgate)

+ The new WorldRadio OnLine magazine is now available at: http://www.worldradiomagazine.com/ ... In addition to several interesting features, the satellite column on page 38.

+ UniverseToday.com has a video, "The Sights and Sounds of Endeavour's Final Launch" made with HD cameras and multiple channel audio recording at: http://tinyurl.com/438s64y

+ OSCAR-11 UO-11 has switched back on. Its beacon is on 145.826 MHz FM. Bob, N4HY posted photos of UO-11 construction and testing: http://tinyurl.com/3d48j7x (n4hy.smugmug.com/)

+ AO-7 continues to provide good DX:
  Luciano, PY5LF reports a 7843 km contact with Joe K3SZH, in
  Mode B, SSB.

  Luis, LU6QI reports on his AO-7 DX on Mode B, CW:
  Humberto XE1FZE: covering 7162 km
  Jay AA4FL operating W4DFU covering 7200 km
  Jim ND9M covering 7346 km

+ Pete, WB2OQQ posted a video showing his satellite operation from
  the special event station W2GSB/APM during the Great South Bay
  Air Power Museum event celebrating Armed Forces Day:
  http://www.youtube.com/watch?v=WyXHvYWaasg ... W2GSB/APM, a
  collector QSL will be sent on SASE request to WB2OQQ's QRZ
  address.

+ Congratulations to Cori, XYL of intrepid maritime-mobile satellite
  operator Jim, ND9M/VQ9JC, upon passing her Technician exam at the
  Dayton Hamvention!

+ Peter Guelzow, DB2OS, says a PDF presented at the AMSAT-DL Satellite
  Symposium and General Meeting 2011 discussing the 'Status of AMSAT
  P3-E and DLR-AMSAT P5-Moon/Mars' can be downloaded directly from
  the AMSAT-DL server: http://tinyurl.com/44ter7y (AMSAT-DL)

[ANS thanks everyone for the above information]

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SB SAT @ AMSAT $ANS-149.06
ARISS Status - 23 May 2011

AMSAT News Service Bulletin 149.06
  From AMSAT HQ SILVER SPRING, MD.
May 29, 2011
To All RADIO AMATEURS
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1. Successful ARISS Contact with Debica, Poland

On Thursday, May 19, an ARISS contact was held between Primary and Junior High Schools Complex in Podgrodziein, Debica, Poland and on-orbit astronaut Ron Garan, KF5GPO. The contact complemented the science curriculum covering physics and astronomy. Local amateur radio operators, experienced in satellite contacts, worked with the school's radio club to prepare for this event. Approximately eighty students were in attendance and listened as Garan fielded 14 space-related questions. News coverage was provided by radio, television and newspapers.

2. ARISS International Team Meeting Held

The monthly ARISS partners meeting was held on Tuesday, May 17. Topics of discussion included the ISS National Lab, the new proposal process for U.S. schools and the Ericsson radio which was recently installed in the Columbus Module. Minutes will be posted to the ARISS Web site in the near future. http://www.rac.ca/ariss/arissmin.htm

3. ARRL QST Posts ARISS News

The American Radio Relay League (ARRL) included several ARISS-related

items in its June QST.

"In Brief" column told about Astronaut Chris Cassidy earning his Amateur Radio license KF5KDR, and Astronaut Luca Parmitano earning his Amateur Radio license KF5KDP. The "Happenings" column ran their photos and a lengthier story about them.

Then the two-page pictorial ran, titled "Houston, We Have Amateur Radio!" written by ARRL Chief Operating Officer Harold Kramer, WJ1B. There was a short summary about the ARISS education program, and then pictures of Kenneth Ransom with the radio in the simulator, the antenna on the ISS mockup, the Kenwood radio, W5RRR's satellite antenna on the tower, W5RRR's president (John Maca, AB5SS) with Harold, Mission Control, and Don Pettit, KD5MDT with Kenneth Ransom and Mark Severance.

4. ARRL Article on New Process for U.S. Schools

The American Radio Relay League (ARRL) ran a Web story on the new ARISS proposal process for U.S. schools. There will be two windows of opportunity each year for U.S. schools and organizations to submit proposals

for an ARISS contact. A window is currently open and proposals should be submitted by July 15, 2011 for a contact that will be scheduled during the January - July 2012 time frame. NASA sent out an EXPRESS message to 18,000 educators letting them know of this opportunity. The message may be found at the end of the article.
http://www.arrl.org/news/nasa-and-ariss-reach-out-to-educators

[ANS thanks Carol, KB3LKI, for the above information]

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SB SAT @ AMSAT $ANS-149.07
Nine New Cubesats

AMSAT News Service Bulletin 149.07
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Nine European Cubesats Heading to Space on Vega

Nine CubeSats built by European Universities are to be flown during the debut of Europe's new Vega launch vehicle scheduled for the final quarter of 2011.

Vega aims to make access to space easier, quicker and cheaper.

Development started in 1998 and it will be launched from the ESA Spaceport at Kourou in the Caribbean.

The nine CubeSats are: AtmoCube, e-st@r, Goliat, OUFTI 1, PW-Sat 1, ROBUSTA, UNICubeSAT, UWE 3, XaTcobeo

A video of the new VEGA launcher can be viewed here
http://esatv-movies.e-vision.nl/videos/mplo/
vega_tests_TV_05-10-11_wmplow.wmv

ESA CubeSat information
http://www.esa.int/esaMI/Education/SEM3N03MDAF_0.html

IARU Satellite Frequency Coordination pages
http://www.amsat.org.uk/iaru/

Southgate has this item posted at http://tinyurl.com/44smkw8.

[ANS thanks Southgate ARC News Site for the above information]

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SB SAT @ AMSAT $ANS-149.08
UK Coloqium

AMSAT News Service Bulletin 149.08
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May 29, 2011
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FUNcube at AMSAT-UK Colloquium July 30-31

The 26th AMSAT-UK International Space Colloquium will be held on the weekend of July 30-31 at the Holiday Inn Hotel, Guildford, England, close to the University of Surrey. A special beginner's session is planned for Friday afternoon July 29.

Among the presentations will be talks on the FUNcube satellite and the FUNcube Dongle VHF-UHF Software Defined Radio.

In additional to the lecture stream there will be the GB4FUN Mobile Communications Centre, AMSAT-UK shop, a Saturday night Gala dinner, auction and raffle.

The event is open to all Radio Amateurs and SWL's. Either day passes or full packages comprising overnight accommodation and meals are available.

Further details are available on the AMSAT-UK website at:
http://www.uk.amsat.org/

[ANS thanks AMSAT-UK for the above information]

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SB SAT @ AMSAT $ANS-149.09
New ARISS School Procedure

AMSAT News Service Bulletin 149.09
  From AMSAT HQ SILVER SPRING, MD.
May 29, 2011
To All RADIO AMATEURS
BID: $ANS-149.09

ARISS Announces New Process for US School Contact Proposals

ARISS and the NASA Johnson Space Center Education Office's Teaching >From Space staff have announced new processes that US-based educators will need to follow to propose a school contact with the International Space Station crew.

ARRL ARISS Program Manager Rosalie White, K1STO says there will be two windows of opportunity each year for educators to submit their proposals for an ARISS contact. The first window opened on May 19 and will close on July 15, 2011. NASA's Teaching From Space Office

says the new proposal process applies only to US schools at this time. Schools in other countries will continue to follow their existing process.

A proposal for an ARISS school contact consists of a comprehensive education plan, of which the ARISS contact is one of many components:

+ The proposal should integrate NASA education and ARRL content with surrounding education activities, and include creative ways to maximize the reach of the ARISS contact and the experience for students.

+ The educator must describe the instructional activities and lessons to be engaged in with students as part of the learning and preparation for the ARISS contact.

+ The proposal should include study topics related to space technology, space exploration or space research, as well as Amateur Radio, radio science and wireless communications technology.

ARISS astronaut contacts under the new processes will begin in January 2012 and end in July 2012. A window of opportunity will open every six months when another NASA news release goes to educators. The initial NASA news release was sent on May 19 to 18,000 educators.

Full coverage of the ARISS program changes can be found on-line at:
http://www.arrl.org/news/nasa-and-ariss-reach-out-to-educators

NASA Teaching From Space web site can be viewed at:
http://www.nasa.gov/audience/foreducators/teachingfromspace/home/ariss.html

US schools wishing to propose an ARISS contact can get started at:
http://www.nasa.gov/audience/foreducators/teachingfromspace/students/ariss.html

Non-US schools can find information regarding the proposal for an ARISS contact at: http://www.rac.ca/ariss/oindex.htm

AMSAT Web site: http://www.amsat.org
ARISS Web site: http://www.ariss.org
ARISS Facebook Page: Amateur Radio on the ISS (ARISS)
ARISS Twitter site: @ARISS_status

Amateur Radio on the International Space Station (ARISS) is a volunteer program in partnership with AMSAT, ARRL, and NASA which inspires students, worldwide, to pursue careers in science, technology, engineering and math through amateur radio communications opportunities with the International Space Station on-orbit crew. Students learn about life on board the ISS and explore Earth from space through science and math activities. ARISS provides opportunities for the school community (students, teachers, families and local residents) to become more aware of the substantial benefits of human space flight and the exploration and discovery that occur on space flight journeys along with learning about technology and amateur radio.

[ANS thanks ARISS, the ARRL, and NASA for the above information]

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SB SAT @ AMSAT $ANS-149.10
AO-51 Partial Operation Restored

AMSAT News Service Bulletin 149.10

From AMSAT HQ SILVER SPRING, MD.
May 29, 2011
To All RADIO AMATEURS
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AO-51 Partial Operation Restored

AMSAT-NA VP Operations, Drew Glasbrenner, KO4MA reports that partial operation has been restored to AO-51.

Because the Integrated Housekeeping (IHU) computer crashes during each eclipse turning AO-51 ON requires a manually sent series of commands from a control station to reload a small housekeeping program stored on the satellite from ROM, then turning the repeater on, setting the modulation level and turning the RF power down.

At present, this re-start sequence is being done on afternoon passes over North America when the satellite's solar panels are being illuminated by sunlight and it is in range of an available control station. AO-51 is being left enabled after the North American afternoon passes so stations in Asia may hear it active still on the descending morning passes there.

The crashes prevent Whole Orbit Data from being collected for analysis on the ground. Analysis of live telemetry indicates that one of the Ni-Cd battery cells has failed. Further study is still in progress.

Drew concluded, "Thanks for all the donations for Fox and ARISSat-1 over the last week! If you haven't yet donated, drop by http://www.amsat.org, or call Martha at 1-888-322-6728 today and help us get Fox in space."

Keep up with the latest AO-51 Control Team News on-line at:
http://www.amsat.org/amsat-new/echo/CTNews.php

[ANS thanks AMSAT-NA VP Operations Drew Glasbrenner, KO4MA for the above information]

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In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office.
Memeorial Day Tribute-Thanks to Veterans for what they have earned for us.

73,
This week's ANS Editor,
Dee Interdonato, NB2F
nb2f at amsat dot org